

Great Lakes RESTORATION at NOAA



"We must leave the Great Lakes better for the next generation than the condition in which we inherited them."

— Great Lakes Restoration Initiative Action Plan

Photo Credit: NOAA GLERL

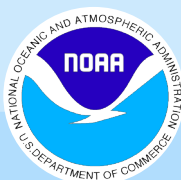
The Great Lakes comprise the largest freshwater ecosystem on Earth. The restoration and protection of the Great Lakes is vital, as they contain 95 percent of the surface freshwater in the United States and more coastline than the entire East Coast. Work is needed to clean up toxic hot spots, restore degraded habitat, and reduce nutrient loadings that cause Harmful Algal Blooms (HABs).

Since 2010, nearly \$2.25 billion has been invested in the Great Lakes region for restoration efforts through the Great Lakes Restoration Initiative (GLRI). The GLRI is a joint initiative of 13 federal agencies led by the U.S. EPA, with the goal of restoring Great Lakes ecosystems. As one of those agencies, the National Oceanic and Atmospheric Administration (NOAA) has been allocated over \$178 million since 2010 to accomplish restoration goals by generating ground-breaking science, creating and disseminating data products and services, strengthening predictive capabilities, and forming partnerships.

To guide the work conducted under the GLRI, federal agencies created a comprehensive action plan that identifies key actions. This action plan (GLRI Action Plan II) prioritizes restoration and protection activities within five GLRI Focus Areas: Toxic Substances and Areas of Concern, Invasive Species, Nonpoint Source Pollution Impacts on Nearshore Health, Habitats and Species, and Foundations for Future Restoration Actions.

Under GLRI Action Plan II, federal agencies aim to clean up Great Lakes Areas of Concern, prevent and control invasive species, reduce nutrient runoff that contributes to harmful/nuisance algal blooms, restore habitat to protect native species, and create a science-based adaptive management framework to help prioritize and assess GLRI projects.

NOAA is making significant contributions to the restoration of the Great Lakes through the GLRI by expanding and enhancing many existing programs, and implementing new innovative projects that address the GLRI Action Plan II.



For additional information, please contact:
Rebecca Held Knoche
NOAA GLRI Program Coordinator
240-533-0812
rebecca.held@noaa.gov





The Great Lakes Restoration Initiative (GLRI) has helped support numerous on-the-ground restoration and land conservation successes to date, including several within NOAA's Restoration Center (part of NOAA Fisheries) and NOAA's Office for Coastal Management (part of the National Ocean Service). Working with local partners, these offices have co-invested in the Muskegon Lake Area of Concern (AOC) in Muskegon, Michigan (shown above) bringing it closer to the goal of delisting.

Current NOAA GLRI-funded projects in each Focus Area include:

Focus Area 1: Toxic Substances & Areas of Concern

- Enhanced NOAA Mussel Watch in the Great Lakes
- Technical Assistance for Areas of Concern
- Priority Habitat Restoration in Areas of Concern
- St. Louis River Data System
- Wisconsin Point Dune Restoration

Focus Area 2: Invasive Species

- GLANSIS (Great Lakes Aquatic Nonindigenous Species Information System)

Focus Area 3: Nonpoint Source Pollution Impacts on Nearshore Health

- Assessment of Agricultural and Urban Watershed Phosphorus Loading Impacts on HAB Formation and Nearshore Water Quality
- Expanded Climatology of Harmful Algal Blooms (HABs)
- Tipping Points and Indicators for Improving Water Quality Across the Great Lakes

Focus Area 4: Habitats and Species

- Coastal and Estuarine Land Conservation (CELCP)

Focus Area 5: Foundations for Future Restoration Actions

- Great Lakes Synthesis, Observation and Response (SOAR)
- A Pilot Framework to Advance the Adaptive Management Process in GLRI
- Great Lakes Bay Watershed Education and Training (B-WET) Program
- Updating Vertical Datums at Local Ports and Harbors of Refuge
- Lake Michigan Coordinated Science and Monitoring Initiative (CSMI)